ACE Model RG354U

General Description : Seven-valve (including rectifier and two-valve converter unit), three-waveband, three-speed auto-change radiogramophone for A.C./D.C. operation. When operating on D.C. mains, A.C. is supplied to the record unit by means of an oscillator converter unit.

Power Supply : A.C./D.C. mains, 200–250 volts.

Wavebands : S.W. 16–50 m.; M.W. 180–550 m.; L.W. 1000–2000 m.

Valves : (V1) 12AH8; (V2) 12BA6; (V3) 12AT6; (V4) 35L6GT; (V5) 35W4. Converter unit: (V6) 50CD6; (V7) 50CD6.

Intermediate Frequency : 472 kc/s.

Pilot Lamps : Two 3·5 volts, 0·15 amp.

Converter Unit : This electronic converter, which provides power for an A.C. record-change unit when operating on D.C. mains, comprises a two-valve power generator using a multi-vibrator-type oscillator circuit, the frequency of which is variable by means of the 500k potentiometer in the grid circuit of V2. This unit is designed to provide silent running together with freedom from causing television interference.

Alignment Procedure : Warning—chassis is " live ".

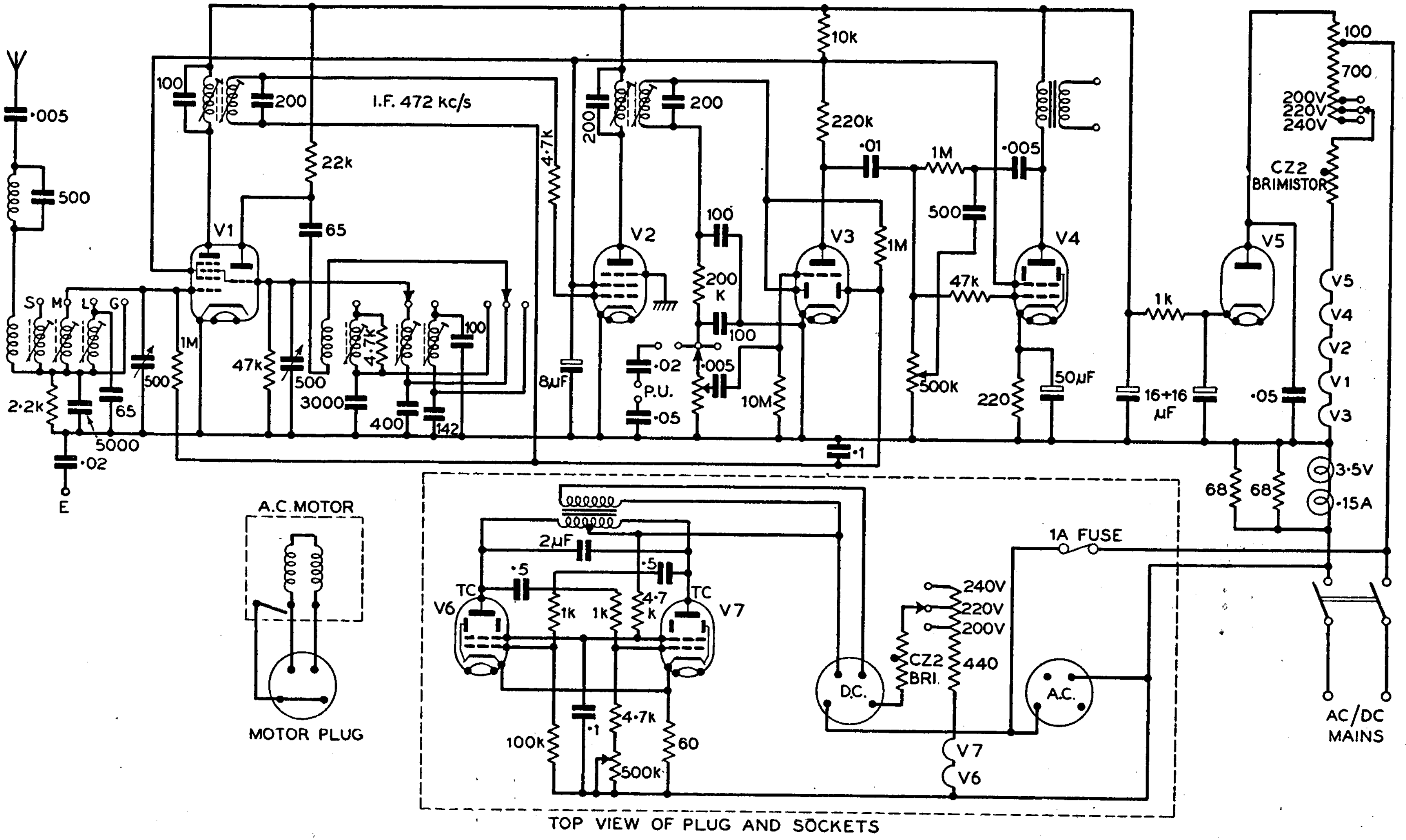
Note that the trimmer capacitors, connected across the appropriate coils, have been omitted from the circuit diagram.

Waveband	*Frequency, Mc/s.*	*Wavelength, m.*	*Adjust*	
			Oscillator	*Aerial*
L.W.	0·15	2000	L.W. oscillator core	L.W. aerial core
L.W.	0·30	1000	L.W. oscillator trimmer	L.W. aerial trimmer
M.W.	0·60	500	M.W. oscillator core	M.W. aerial core
M.W.	1·5	200	M.W. oscillator trimmer	M.W. aerial trimmer
S.W.	6·0	50	S.W. oscillator core	S.W. aerial core
S.W.	15·0	20	S.W. oscillator trimmer	S.W. aerial trimmer

I.F. transformers are aligned for maximum output at 472 kc/s. with the tuning capacitor fully closed on L.W. The signal generator should be connected to the control grid of the 12AH8 (pin 2) through a 0·1-μF. capacitor. Check that the pointer lines up with the marker above 50 m. when the tuning gang is fully closed.

R.F. alignment is carried out in the usual manner in the order shown above with the signal generator connected to the aerial and earth sockets through a dummy aerial.

The oscillator coils are those nearest the centre of the chassis. When aligning short waves slight gang rocking around the aligning frequency should be employed to overcome the effects of pulling.



Circuit Diagram—Ace Model RG354U